## *Trifolium leibergii* A. Nelson & J. F. Macbride (1918)

## LEIBERG CLOVER

**FAMILY:** Fabaceae, the legume family.

STATUS: Heritage Program SENSITIVE LIST, ranks: G2 S2

USFWS/ESA: species of concern. STATE OF NEVADA: none. BLM: Special Status Species in Nevada.

USFS: Humboldt-Toiyabe NF Sensitive Species. NNNPS: watch list.

**POPULATION CENSUS (NEVADA): 7 occurrences mapped** at 1.0 km (0.6 mi) separation, OR **13 occurrences mapped** at 0.16 km (0.1 mi) separation; total estimated **individuals 136,000**+, total estimated **area 11.1**+ **ha (27.4**+ **ac)**. **TREND:** unknown.

**IMPACTS AND MAJOR THREATS (NEVADA):** No summary available (see references).

**INVENTORY EFFORT (NEVADA):** Surveys in Nevada have been extensive but likely remain incomplete. Most recent entered survey 1994, average year of last survey 1993. **Years since last entered survey** (percent of mapped records at various survey ages): **6-10 yrs:** 92.3%; **11-20 yrs:** 7.7%.

**LAND MANAGEMENT** (**NEVADA**) in decreasing predominance: Humboldt-Toiyabe National Forest, designated wilderness, private lands.

**RANGE:** Elko County, Nevada; also in OR. In Nevada known from the Independence and Jarbidge mountains. Maximum Nevada **range dimension 65.2 km (40.5 mi)** excluding most disjunct record. **Type specimen** collected in Oregon, Harney co.

ELEVATIONS RECORDED (NEVADA): 6560-7800 feet (1999-2377 meters).

**HABITAT (NEVADA):** Mostly on dry, shallow, relatively barren gravel soils of crumbling volcanic outcrops, mostly on flat to steep tops and upper slopes, sometimes on side or toe slopes, mostly with northeast to southeast to southwest aspects, with Artemisia arbuscula and other sparse associated species.

PHENOLOGY: flowering late-spring. Range of most frequent survey months: June-August.

LIFE-FORM AND HABIT: rhizomatous perennial herb.

**DESCRIPTION:** A perennial herb, 1-1.5 dm tall, with 3 spiny-tipped leaflets and with stems and leaves that are covered with dense gray hairs. A rounded cluster of cream-colored flowers with purple or pink accents blooms in June and July. **Distinguishing features:** Distinguished from other pinkish-purple, trifoliate clovers of the area by the combination of entirely densely gray-villous herbage, with coarsely spinulose-serrate leaflets, a much reduced involucre, and a densely villous ovary and pod.

PHOTOGRAPHS: Smith and Curto (1995); Nevada Natural Heritage Program files.

ILLUSTRATIONS: Barneby (1989).

## **SPECIFIC REFERENCES:**

Gillett, J. M. 1972. Taxonomy of Trifolium (Leguminosae) IV. The American species of section Lupinaster (Adanson) Seringe. Canadian Journal of Botany 50: 1975-2007.

White, M. R. 1994. Sensitive plant species surveys, Mountain City Ranger District, Humboldt National Forest. Elko, Nevada: U. S. Department of Agriculture, Humboldt National Forest.